

# SNF Stabilization and Disposition (RL-0012)

**M. W. Peres, Vice President of  
K Basins Closure Project / (509) 373-4815**

**D. G. Ruscitto, Vice President of  
Sludge Treatment Project / (509) 376-1998**

**R. E. Wilkinson, Vice President of  
Central Plateau D&D / (509) 373-9841**



***KBC Project - Multi-Canister  
Overpack Demonstration***

***Sludge Treatment Project –  
30 gallon drum with fixed mixing  
blades***



***K East D&D –  
K East office area  
demolition***

## Overview

This section addresses work in Project Baseline Summary (PBS) RL-0012, *Spent Nuclear Fuel (SNF) Stabilization and Disposition*. There are three major components to this work scope:

- K Basins Closure Project (KBC) [M. W. Peres].
- Sludge Treatment Project (STP) [D. G. Ruscitto].
- K East Basin Deactivation and Decommissioning (D&D) [R. E. Wilkinson].

NOTE: Unless otherwise noted, all information contained herein is as of June 2008.

## Notable Accomplishments

### **K East D&D Project (D&D)**

- Completed demolition of the office area, Fuel Transfer System, and Tank #1.
- Completed thermal system insulation (TSI) asbestos abatement.
- Continued demolition preparation activities in the F-G Column line area including:
  - Initiated installation of the barrier wall in the penthouse area of F-G line.
  - Completed the initial hazard categorization of the 105-K East superstructure between the structural F and G lines.
- Started demolition of the basin superstructure.
- Completed substructure demolition technical approach.

### **K Basins Closure Project – Legacy Fuel Removal**

- Completed Legacy Fuel Readiness Self Assessments.
- Completed Legacy Fuel Contractor Operational Readiness Review (ORR).
- Shipped/disposed of 14 wood boxes to ERDF.
- Installed shielding in the Clarifier.

### **Sludge Treatment Project (STP)**

- Prepared Functional Requirements Document (FRD) for Knock Out Pot (KOP) Acceleration Disposition.
- Completed Balance of Facility 30 percent design.
- Completed Final Container Sludge Sampling system design.
- Completed Conceptual Design for Settler Tank sludge sampling equipment.

## Issues

### **K East D&D Project**

- None at this time.

### **K Basins Closure Project**

- Potential delays/repair turnaround timeframe for any major fuel processing equipment failures.
- Maintaining staff which have received training and attained qualification at K West and the Cold Vacuum Drying Facility (CVDF).
- Receiving additional fuel from Washington Closure Hanford.

### **STP**

- Funding for FY 2009/FY 2010 based on project priorities.
- Central Characterization Project (CCP) contracted with Waste Isolation Pilot Plant (WIPP); liaison impacts design (shifting Waste Acceptance Criteria [WAC] direction from DOE).
- Addressing potential for new RH-TRU Storage Facility.

## FY 2008 Funds vs. Spend Forecast (\$M)

	Projected FY 2008 Funding	FY 2008 Fiscal Year Spending Forecast	Variance
SNF Stabilization & Disposition	\$ 107.4	\$ 108.5	\$ -1.1

## Schedule/Cost Performance (\$M)

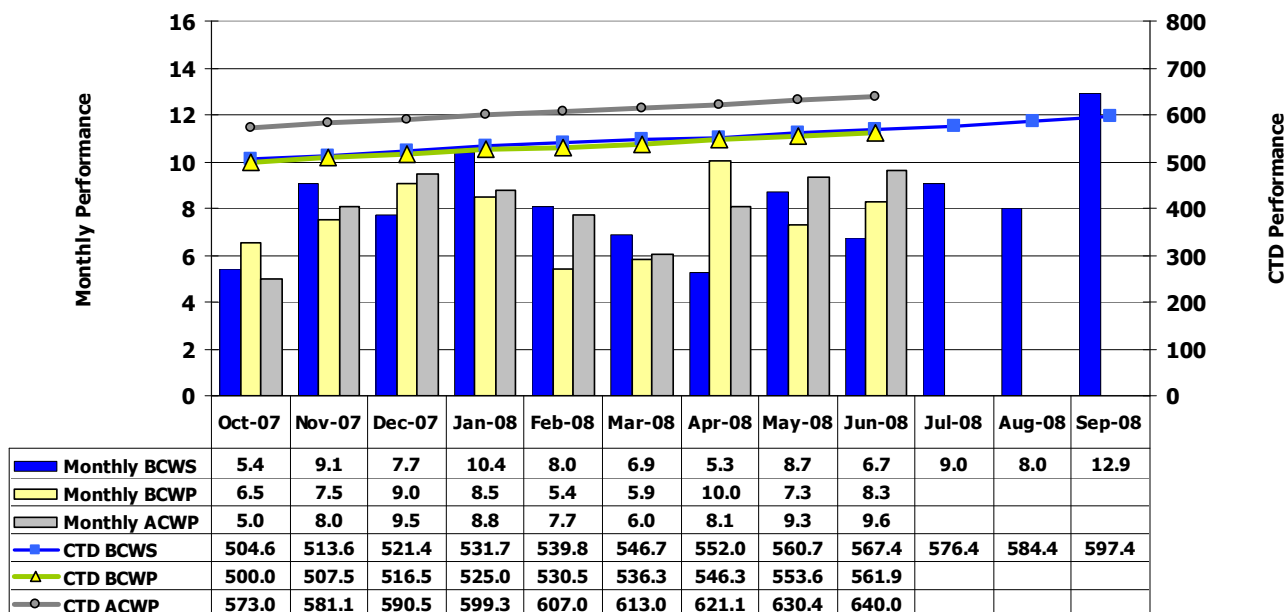
SNF Stabilization & Disposition	Budgeted Cost of Work Scheduled	Budgeted Cost of Work Performed	Actual Cost of Work Performed	Schedule Variance \$	Schedule Variance %	Cost Variance \$	Cost Variance %	Budget At Completion (FY08/ CTD)
Current Period (Month)	\$6.7	\$8.3	\$9.6	\$1.5	22.8%	-\$1.3	-16.1%	\$98.2
Cumulative-to-Date (FY 2004 - Present)	\$567.4	\$561.9	\$640.0	-\$5.5	-1.0%	-\$78.1	-13.9%	\$597.4

**Numbers are rounded to the nearest \$0.1M and include the closure services allocation.**

- **CTD Schedule Performance (-\$5.5M/-1.0%):** Unfavorable SV is due to: delays in the STP due to slow start to PNNL activities to receive container samples, Settler Tank material behind schedule, and KOP retrieval design did not start as soon as planned; delays in Legacy Fuel work scope (systems readiness and MCO processing), and K East to K West Sludge Transfer System D&D. K East D&D demolition activities are behind due to asbestos abatement and weather delays.
- **CTD Cost Performance (-\$78.1M/-13.9%):** The unfavorable CV is primarily due to problems encountered in design, implementation, startup, and operation of spent fuel removal, sludge containerization, and transfer systems. System complexity and requirements were underestimated. Most of the cost variances were incurred prior to FY 2006.

## Schedule/Cost Performance (\$M), continued

### Performance Analysis CTD and Monthly (\$M)



## Milestone Achievement

*Hanford Federal Facility Agreement and Consent Order* (Tri-Party Agreement) milestones and Defense Nuclear Facilities Safety Board (DNFSB) commitments represent significant events in project execution. DOE Enforceable Agreement milestones were established to provide high-level visibility to critical deliverables and specific status on the accomplishment of these key events. The FY 2008 Enforceable Agreement milestone/DNFSB commitment information provided herein is based upon the current baseline including RL-approved changes. Changes from month-to-month in both the total number of milestones to be completed and in the forecast status of upcoming milestones are the result of BCRs approved during the reporting period.

Number	Title	Type (TPA/PI/DNFSB)	Due Date *	Actual Date	Forecast Date	Status / Comments
M-034-35b (S10-05-011)	Complete K West Final Pass	TPA	01/31/08	12/27/07		Complete

\* DNFSB dates reflect Implementation Plan update, TPA dates reflect change package M-34-05-04.